



DESCRIPTION
Angular Velocity Sensor

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5 [0001] This application is a Continuation-In-Part of International Application PCT/JP02/12311,
filed November 26, 2002.

TECHNICAL FIELD

[0002] The present invention relates to an angular velocity sensor for use in attitude control of
mobile units such as aircraft and vehicles, navigation system, and the like.

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BACKGROUND ART

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[0003] In conventional angular velocity sensors disclosed, for example, in Japanese Patent Non-
examined Publication No. H10-332378, a vibrator is directly supported by terminals. The
conventional angular velocity sensor will be described below with reference to the accompanying
drawings. FIG. 21 is a perspective view of the conventional angular velocity sensor and FIG.
22 is a circuit diagram of the angular velocity sensor.

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[0004] In FIG. 21 and FIG. 22, vibrator 1 in a rectangular parallelepiped shape is constructed
by laminating first piezoelectric substrate 2 to second piezoelectric substrate 4 via electrode layer
3. On the top side of vibrator 1, there are provided two split electrodes 5 serving for both driving
and detecting roles, while on the underside, there is provided common electrode 6. Four
terminals 7 substantially in a Z-shape are each held in place by having widened portion 8 at one
end thereof soldered to split electrode 5 of vibrator 1 at a nodal point of vibration of vibrator 1.
The other end is projected to the outside. Such an angular velocity sensor has a circuit
configuration as shown in FIG. 22. More specifically, split electrodes 5 are each connected with
one output terminal of oscillator circuit 9 as the driving source via respective resistors 10, while
common electrode 6 is connected with the other output terminal of oscillator circuit 9. Further,
split electrodes 5 are each connected to noninverting input (+) and inverting input (-) of

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